

**What is claimed is:**

1. A communicating system for relaying a communication between a server and a client,  
5 comprising:

a buffer buffering data transmitted from the server to the client and accelerating data output from the server so as to increase a throughput assigned to a connection to the client by the  
10 server; and

15 a transferring device transferring data stored in said buffer to the client.

2. A communicating system for relaying a communication between a server and a client,  
15 comprising:

a receiving device receiving data transmitted from the server to the client;

20 a converting device converting a protocol of the received data into another protocol that allows a larger amount of data to be transferred at a time; and

a transmitting device transmitting data converted by said converting device to a network.

3. The communicating system as set forth in  
claim 2, further comprising:

5        a multiplexing device multiplexing data of  
multiple connections converted by said converting  
device,

wherein said transmitting device transmits the  
multiplexed data.

10      4. The communicating system as set forth in  
claim 2, further comprising:

an idling device performing an idling  
operation corresponding to a resource assigned to  
the client,

15      wherein said transmitting device transmits  
data after the idling operation is completed.

5. The communicating system as set forth in  
claim 2, further comprising:

20      a charging device performing a charging  
process for a service provider of the server,

wherein said receiving device receives a  
request from the client through the network,

25      wherein said charging device determines  
whether or not the request from the client is a  
request to be issued to the server,

wherein when the request from the client is  
the request to be issued to the server, said  
transmitting device transfers the request from the  
client to the server and said charging device  
5 charges the service provider.

6. A communicating system for relaying a  
communication between a serer and a client,  
comprising:

10 a receiving device receiving data from a  
network, the data obtained by converting a protocol  
of data transmitted from the server to the client  
into another protocol that allows a larger amount  
of data to be transferred at a time;

15 a converting device converting the protocol of  
the received data into the original protocol; and  
a transmitting device transmitting the data  
converted by said converting device to the client.

20 7. The communicating system as set forth in  
claim 6, further comprising:

a demultiplexing device demultiplexing data  
that has been multiplexed,

25 wherein said receiving device receives  
multiplexed data in which data of multiple

connections has been multiplexed,  
wherein said demultiplexing device  
demultiplexes the received data, and  
wherein said converting device converts a  
5 protocol of the demultiplexed data.

8. The communicating system as set forth in  
claim 6, further comprising:

10 a charging device performing a charging  
process for a user of the client,

wherein said receiving device receives a  
request to the server from the network,

15 wherein said charging device determines  
whether or not the request to the server is a  
request from the client, and

wherein when the request to the server is the  
request from the client, said transmitting device  
transmits the request to the server and said  
charging device charges the user.

20

9. A computer-readable recording medium on  
which a program for a computer controlling a  
communication between a server and a client is  
recorded, said program causing the computer to  
25 perform:

buffering data transmitted from the server to the client and accelerating data output from the server so as to increase a throughput assigned to a connection to the client by the server; and  
5                   transferring the buffered data to the client.

10. A computer-readable recording medium on which a program for a computer controlling a communication between a server and a client is recorded, said program causing the computer to perform:

15                   receiving data transmitted from the server to the client;  
                      converting a protocol of the received data into another protocol that allows a larger amount of data to be transferred at a time; and  
                      transmitting the converted data to a network.

20. A computer-readable recording medium on which a program for a computer controlling a communication between a server and a client is recorded, said program causing the computer to perform:

25                   receiving data from a network, the data obtained by converting a protocol of data

transmitted from the server to the client into another protocol that allows a larger amount of data to be transferred at a time;

5 converting the protocol of the received data into the original protocol; and transmitting the converted data to the client.

12. A communicating method, comprising:  
10 forming a virtual tunnel for hiding a network delay that takes place between a server and a client; and

15 using the virtual tunnel as a communication bypass between the server and the client so as to increase a throughput between the server and the client.

13. The communicating method as set forth in claim 12, further comprising:

20 charging a user of the client for a communication using the virtual tunnel.

14. The communicating method as set forth in claim 12, further comprising:

25 charging a service provider of the server for a communication using the virtual tunnel.

15. A communicating system for relaying a communication between a server and a client, comprising:

5       buffer means for buffering data transmitted from the server to the client and accelerating data output from the server so as to increase a throughput assigned to a connection to the client by the server; and

10       transferring means for transferring data stored in said buffer means to the client.

15       16. A communicating system for relaying a communication between a server and a client, comprising:

receiving means for receiving data transmitted from the server to the client;

20       converting means for converting a protocol of the received data into another protocol that allows a larger amount of data to be transferred at a time; and

transmitting means for transmitting data converted by said converting means to a network.

25       17. A communicating system for relaying a

communication between a server and a client, comprising:

5 receiving means for receiving data from a network, the data obtained by converting a protocol of data transmitted from the server to the client into another protocol that allows a larger amount of data to be transferred at a time;

10 converting means for converting the protocol of the received data into the original protocol; and

transmitting means for transmitting the data converted by said converting means to the client.

15 18. A propagation signal for propagating a program to a computer controlling a communication between a server and a client, said program causing the computer to perform:

20 buffering data transmitted from the server to the client and accelerating data output from the server so as to increase a throughput assigned to a connection to the client by the server; and

transferring the buffered data to the client.

25 19. A propagation signal for propagating a program to a computer controlling a communication

between a server and a client, said program causing the computer to perform:

receiving data transmitted from the server to the client;

5       converting a protocol of the received data into another protocol that allows a larger amount of data to be transferred at a time; and

transmitting the converted data to a network.

10       20. A propagation signal for propagating a program to a computer controlling a communication between a server and a client, said program causing the computer to perform:

receiving data from a network, the data obtained by converting a protocol of data transmitted from the server to the client into another protocol that allows a larger amount of data to be transferred at a time;

15       converting the protocol of the received data into the original protocol; and

20       transmitting the converted data to the client.